

# **EXHIBIT C**

### **REMEDIATION ESTIMATE**

The following Remediation Estimate was prepared in 2013. Some costs such as surveyor and post closure monitoring were not calculated. It is now seven (7) years later and all costs are now increased.

### Cimarron Ranch Remediation Estimates

Work Item	\$ Cost	Date
DEC Soil Testing Plan implementation (10 pits )	0 – 25,000	9-13
Remediation Plan based on soils (P.E. required )	10,000+	9-13
Basic plan implementation (grading, sorting, trucking)	1,186,700	3-13
• Cover soil (18" clean fill + 6" topsoil)	500,000	Est.
• HDPE impervious membrane	75,000	Est.
• Percolated drainage interceptor fabric	120,000	Est.
Monitoring of work (20 – 30 days @ \$1,500-\$2,000 / day)	30,000 – 40,000	9-13
Closure Construction Certification report (P.E. required)	20,000 – 40,000	9-13
<b>Total Cost Estimate</b>	<b>\$1,941,700 – \$1,971,700</b>	
Surveyor required for pre/during/post closure procedures to establish permanent reference points, confirmation of graded C&D fill before and after capping as part of certification report	????	
Cost of post closure monitoring not included	????	
Dated costs were provided during economic depression	????	

# **Cimarron Ranch**

## **Remediation Plan for the Compost and Construction and Demolition Debris Processing Facility**

June 26, 2013

Prepared by:



**Environmental Design Consulting**

Bruce M. Donohue, Landscape Architect BLA, MLA, MS Ecology

ENVIRONMENTAL IMPACT ANALYSIS ☐ LANDSCAPE DESIGN ☐ SITE PLANNING  
13 PROMISED ROAD, WESTPORT, CONNECTICUT 06880 (203) 226-0386

Accepted by:

\_\_\_\_\_  
Hon. Francis A. Nicolai, Justice

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
Alexander Kasper, Owner

\_\_\_\_\_  
Date signed

\_\_\_\_\_  
Town of Putnam Valley  
Robert Tendy, Supervisor

\_\_\_\_\_  
Date signed

## **Introduction**

The original Court approved Restoration Plan, dated May 6, 2009, was designed to meet the Court's 3-12-09 order to develop such a plan, ie a program that would restore the land to its condition prior to the unapproved activities. It has become apparent that a plan such as the one approved will not be economically feasible. Its cost would, by rough estimates obtained from prospective contractors, approach or exceed the appraised value of the entire 440± acres. Consequently the following revisions to the original plan are to be implemented.

## **Objectives**

Remediation of the unpermitted activities conducted on this site shall be rendered safe, innocuous and stable. The activities that are neither agricultural in nature nor permitted by the Town include:

- Land clearing without a logging permit, Chap. 140-Forestry.
- Disturbance within a regulated wetland and its buffer, Chap. 144-Freshwater wetlands, Watercourse and Water Bodies
- Excavation without a permit, Chap. 165, Zoning, Art XVI Excavations.
- Land disturbance without an Erosion and Sedimentation Permit, Chap. 155, Erosion and Sediment Control.
- New road construction.
- Land filling.
- Importation of construction and demolition debris, including concrete, asphalt, brick, lumber, logs and stumps.

## **Content**

This Restoration Plan shall consist of two documents: a written description of the work to be done and a graphic description of the restoration. All portions of the restoration process shall be monitored by the Receiver and representatives of the Town and DEC, at their discretion. The standards for closure of a waste management facility, such as this, are described in 6 NYCRR Part 360, Solid Waste Management Facilities. Section 360-1.14, Operational Requirements for All Solid Waste Management Facilities, includes subdivisions 360-1.14(b), Water, and (w), Closure. The first subdivision states that (1) solid waste materials shall not be allowed to enter surface or subsurface waters, and (2) leachate shall not be allowed to migrate into either surface or groundwaters. Subdivision (w) requires that all facilities must be closed properly, monitored and closure maintained in such a manner to minimize the need for further maintenance or remediation. All closures must prevent or remedy adverse environmental or health impacts, eg. Contravention of surface or groundwater standards. The following operations are intended to satisfy these standards.

## **Sequence and Timing**

The following sequence is approximate. Several of the operation could be carried on simultaneously. The time allocated to each work item is approximate. Weather conditions and contractor coordination may affect these estimates to a minor degree. Work is to commence immediately upon notification of sufficient available funds. It shall proceed in a continuous fashion from beginning to end . Final seeding and mulching shall be completed no later than September 15<sup>th</sup> to allow adequate growth

for ground stabilization. A later completion date may require an application of hydro-mulch at the manufacturer's erosion control rate for over-winter stabilization of these disturbed areas.

### **Work Item Sequence**

<b>Work Item</b>	<b>Time</b>	<b>Equipment</b>
<b>Phase I</b>		
Install erosion and sediment controls.	2 days	Ditch Witch
Process stumps and logs into mulch	30 days	Stump shear
Remove felled trees from along down-slope of graded area in the SE corner of the disturbed area	1-2 days	Stump grinder Loader
Process collected felled trees into mulch.		Trucks
Any material found which requires special handling will be separated, contained and trucked off-site. There shall be no on-site processing of non-organic C&D materials.	10-30 days	Beast Recycler Excavator Screener Containers (?)
Stock pile chipped/mulched material for use on-site or trucking off-site		
<b>Phase II</b>		
Regrading of Site <ul style="list-style-type: none"> <li>• Regrade terraced area in the SE corner                             <ul style="list-style-type: none"> <li>o Ease fill slope to 1:5 (vert. : horiz.) maximum.</li> <li>o Ease cut slope as feasible using material from fill slope.</li> <li>o Spread 4"± mulched material and incorporate into top 12" of existing mineral soil.</li> <li>o Spread stock piled topsoil, leaving road area as mineral soil with incorporated mulch.</li> <li>o Seed and mulch restored areas.</li> </ul> </li> </ul>		
<b>Phase III</b>		
<ul style="list-style-type: none"> <li>• Regrade remaining concrete, asphalt, slat, etc. as indicated on plan.                             <ul style="list-style-type: none"> <li>o All material shall be concentrated as shown.                                     <ul style="list-style-type: none"> <li>▪ Maximum slope shall be 1:5.</li> <li>▪ Exposed material to remain in place and relocated material shall be thoroughly compacted with heavy tracked equipment.</li> </ul> </li> <li>o All inappropriate material encountered, -----, such as household refuse, plumbing and electrical material, ----- shall be placed in dumpsters for appropriate disposal at a licensed facility.</li> <li>o In the event that suspicious/unidentifiable material is encountered, samples shall be tested for VOCs, asbestos, etc. Samples shall be taken by the on-site monitor. Chain of custody records will not be necessary. Such materials shall be left in place until</li> </ul> </li> </ul>	5-10 days	'Dozer Loaded Truck Dumpster

<p>test results are available. Inappropriate material shall be disposed of accordingly. Tracking records from site to receiving facility shall be kept by the contractor.</p> <ul style="list-style-type: none"> <li>o Concentrated and graded C&amp;D material shall be capped with 12" of clean fill. <ul style="list-style-type: none"> <li>▪ Top 6" will be topsoil capable of supporting soil-stabilizing growth of vegetation.</li> <li>▪ Topsoil may include screenings from the on-site operations fortified with on-site compost and wood chips in a 3:1:1 ration, respectively.</li> <li>▪ Bottom 6" of fill may include some small sized C&amp;D material as well as the stony screenings from the screening operation.</li> </ul> </li> <li>o Finished grading around the capped material shall be done in such a manner that upslope surface runoff is directed around the capped material, as shown on the plan.</li> <li>o Other disturbed areas, such as interior circulation roads shall be regarded in a manner to attain sheet runoff flow to the greatest extent practicable. <ul style="list-style-type: none"> <li>▪ Regraded areas shall receive a minimum of 4" of wood chips incorporated into the top 12" of mineral soil.</li> <li>▪ Any remaining compost shall be incorporated into areas of steepest slope to improve viability of stabilizing vegetation.</li> <li>▪ Areas under current deposits of woody material and possibly under C&amp;D material to be relocated may retain original soil profile. <ul style="list-style-type: none"> <li>• If soil profile remains, scarify, seed and mulch.</li> <li>• If topsoil has been striped, scarify and incorporated 4" of wood chips into the upper 12" of mineral soil, seed and mulch.</li> </ul> </li> </ul> </li> <li>o The principle access road from Cimarron Road shall remain from Cimarron road to the first junction. <ul style="list-style-type: none"> <li>▪ The drainage swale along the --- side shall be stabilized with rip-rap, as detailed.</li> <li>▪ Drain outfall shall be piped to toe of slope before discharging.</li> <li>▪ Drain discharge shall have energy dissipater installed as detailed.</li> </ul> </li> <li>o New road to Cimarron Ranch horse barn shall be regraded as necessary.</li> </ul>		
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<ul style="list-style-type: none"> <li>▪ Grading shall pitch down slope maintaining sheet flow to the greatest extent possible.</li> <li>▪ Water bars shall be installed as shown.</li> <li>○ Backfill open utility trench north of entrance road.</li> </ul>		
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Site Stabilization		
<ul style="list-style-type: none"> <li>• Seed all areas disturbed by the unpermitted activities as shown on the Seed &amp; Mulch Distribution plan insert on the Restoration graphics.</li> <li>• South area of site, where the least activity occurred shall be seeded with Riparian Buffer Mix, ERNMX-178, from Ernst Conservation Seeds. This mix shall be supplemented with tree species seed at the rate of 5% each by weight: Acer rubrum/Red Maple, Acer saccharum/Sugar Maple, Fraxinus pennsylvanica/Green Ash, and Quercus rubra/Red Oak. In addition, the seed for the area within 50ft. of the wetland shall have 5% each by weight: Cornus stolonifera/ Red-osier Dogwood, Linder benzoin/Spicebush and Viburnum dentatum/Arrowwood viburnum. Supplemental seed is also available from Ernst. This mix shall be sown at the rate of 15 lbs/ac. <ul style="list-style-type: none"> <li>○ <u>Alternative</u></li> <li>○ Supplement existing revegetated area with saplings and shrubs acclimated to wet conditions and located as shown on plan.</li> </ul> </li> <li>• The area utilized most intensively for the processing and stock piling of materials and heavy equipment storage shall be seeded with Native Upland Wildlife Forage and Cover Meadow Mix, ERNMX-123, from Ernst Conservation Seeds. This mix shall be supplemented with 5% each of Acer saccharum/Sugar Maple, Betula lenta/Sweet Birch, and Quercus rubra/Red Oak, also available from Ernst. This mix shall be sown at the rate of 15 lbs/ac. <ul style="list-style-type: none"> <li>○ The entrance road shoulders and embankment shall be seeded with Native Steep Slope with Annual Ryegrass, ERNMX- 181, from Ernst Conservation Seeds. This mix shall be sown at the rate of 30 lbs/ac.</li> <li>○ The restored road to the horse barn shall be seeded with Native Right-of-way Woods Seed</li> </ul> </li> </ul>	1 day	



<p>Mix with Annual Ryegrass, ERNMX-132-1. This mix shall be sown at the rate of 30 lbs/ac.</p> <ul style="list-style-type: none"> <li>If seeding is done in combination with hydro-mulching the seed supplier must be consulted for application procedures. It may be necessary to broadcast tree and shrub species seed by hand, depending upon the equipment used.</li> </ul>		
<ul style="list-style-type: none"> <li>Mulch shall be applied to all seeded areas to provide temporary stabilization while the seeded material is able to germinate and form sufficient growth to provide permanent soil stabilization. The wood mulch produced on-site is inappropriate for the necessary seed protection. <ul style="list-style-type: none"> <li>Chopped straw mulch shall be applied at the rate of 1.5-2.0 tons/ac., alternatively,</li> <li>Hydro-mulching at the rate of 1,500 lbs/ac. of paper mulch with a polyacrylamide tackifier additive, such as Slicky Sticky® at the rate of 15lbs/ac., or</li> <li>Winter stabilization, if necessary, shall be hydro-mulch with wood fiber at the rate of 2,000 lbs/ac. with a polyacrylamide tackifier additive, such as Slicky Sticky® at the rate of 15 lbs/ac.</li> </ul> </li> </ul>	1-2 days	Mulch chopper Hydro-mulcher
<ul style="list-style-type: none"> <li>Remove erosion and sediment controls upon Town verification of permanent site stabilization.</li> </ul>	1 day	
	108± days 3½± mo.	

### Monitoring

Monitoring inspections shall be made of the restoration activities to assure that the objectives of the plan are achieved as prescribed and in a timely fashion. On-site monitoring inspections shall be made by the Receiver:

- Daily during critical activities
- During or within 24 Hrs after a significant rainfall  $\geq \frac{1}{2}$ ".
- Written reports shall be prepared and submitted to the Court, Town, Valley View Farm and the responsible Contractor. These reports shall contain:
  - Placement and condition of erosion and sediment controls.
  - Restoration activities at the time of inspection.
  - Progress since the previous inspection.
  - Recommendations
- Erosion and sediment (E&SC) control maintenance.
- E&SC modification to better protect the restoration area.
- Restoration of the site stability.

Monitoring shall continue on a bi-weekly basis and post rainfall until the site has been permanently stabilized. This should after the first full growing season.

**Working Conditions**

- All work shall be limited to the hours of 8:00 am to 6:00 pm, Monday through Friday.
- No work shall be done on legal holidays.
- Trucks used for hauling materials off-site shall be no larger than 20 c.y. capacity, unless approved in writing from the Town.
- Contractor shall base his proposal on his own volumetric and areal computations

All truck traffic hauling materials off-site shall proceed east on Cimarron Rd. to Church St. and Mill St. to Rt. 6. Return traffic shall reverse this route. Alternate routes may be used with written approval from the Town.

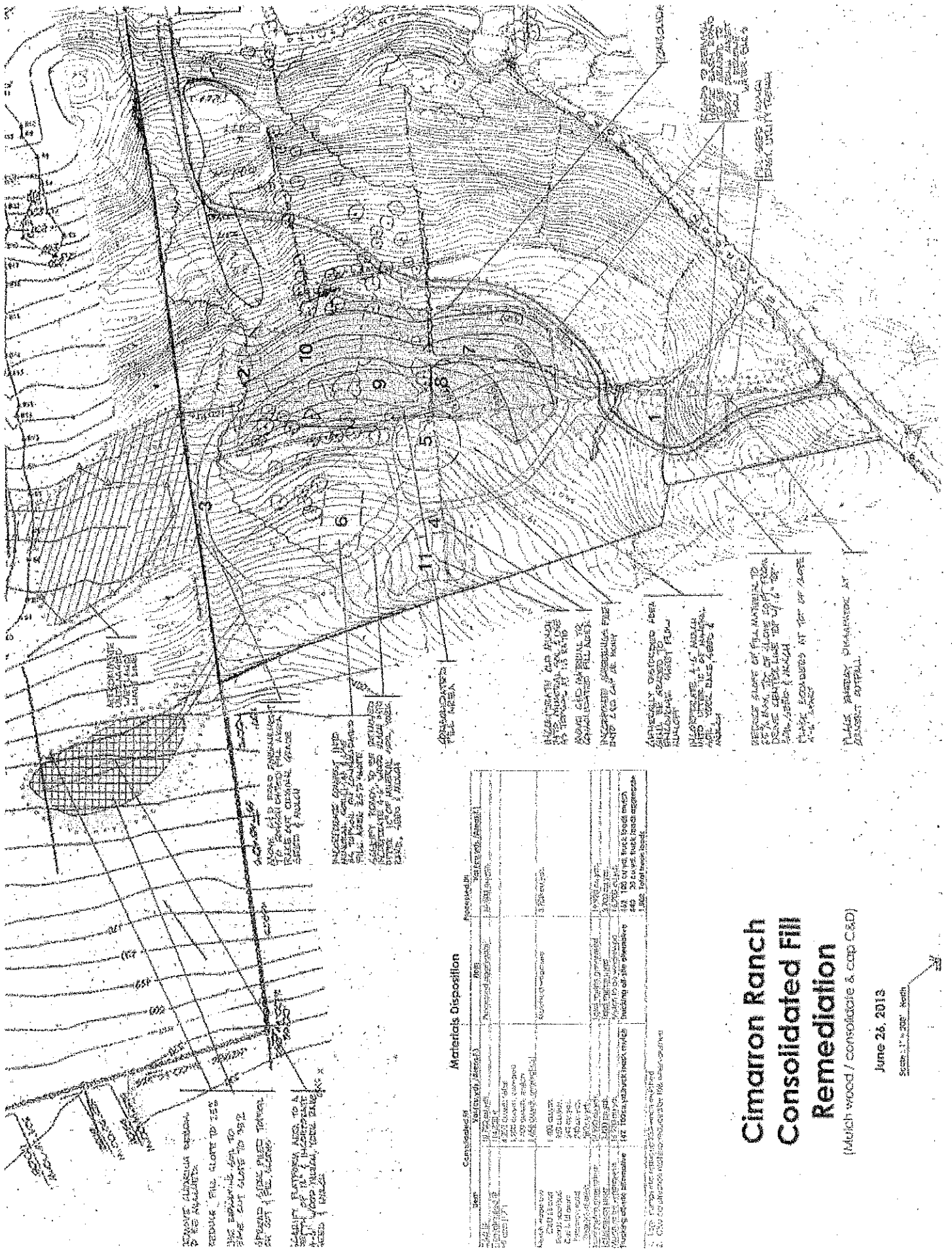
# Cimarron Ranch Unpermitted Activities Existing Conditions

June 26, 2013

Scale: 1" = 200' North

SYMBOL	DESCRIPTION	ESTIMATED VOLUME (cu.yds.)
<b>Construction &amp; Demolition (C&amp;D) Material</b>		
1	Entrance Road Platform	3,860
2	Fill Platform	9,490
3	Road Embankment to Upper Level	4,740
4	C&D Pile	730
		<b>Total Volume 18,730 cu.yds.</b>
<b>Processed Material Ready for Use</b>		
5	Screenings Pile	2,100
6	Compost	1,200
11	Wood Mulch	2,500
		<b>Total Volume 5,800 cu.yds.</b>
<b>Land Clearing C&amp;D Material</b>		
7	Fill Platform	19,300
8	Sorted Log Pile Ready for Mulching	560
9	Unsorted Log & Slump Pile	870
10	Slump Pile	6,620
		<b>Total Volume 26,560 cu.yds.</b>
	Area Cleared, Grubbed & Graded	
	Area cleared & Grubbed	
	Disturbance Limit of Unpermitted Activities	





# Cimarron Ranch Consolidated Fill Remediation

(Mulch wood / consolidate & cap C&D)

June 23, 2013

Sept 14, 2023

Serial	Commodities	Quantity	Value	Remarks
1	100 lbs. of rice	100	10.00	
2	100 lbs. of rice	100	10.00	
3	100 lbs. of rice	100	10.00	
4	100 lbs. of rice	100	10.00	
5	100 lbs. of rice	100	10.00	
6	100 lbs. of rice	100	10.00	
7	100 lbs. of rice	100	10.00	
8	100 lbs. of rice	100	10.00	
9	100 lbs. of rice	100	10.00	
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